malpositioned in the common iliac vein and the other filter was tilted >50 degrees in the IVC) had their IVC filters repositioned under traditional fluoroscopic guidance. One patient, who had a failed retrieval attempt at 20 weeks, was diagnosed with pulmonary embolism 1 year after the filter placement. Thirty-seven percent of patients were advised to keep their filters on a permanent basis while 43% of the patients were lost to follow up. The retrieval rate of the filters was 20% at an average of 18 weeks after filter placement.

Conclusions: For the critically ill patient, IVUS guided IVC filter placement is a safe and effective alternative to traditional fluoroscopic guided placement. This method eliminates the risk of patient transport as well as exposure to intravenous contrast materials.

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PS154.

Pulmonary Embolism without Deep Venous Thrombosis

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Objectives: Classic teaching suggests pulmonary embolism (PE) to be a consequence of deep venous thrombosis (DVT). However, we have noted a subset of patients with PE documented by dedicated computed tomography scan (CT) of the chest to have no identifiable source on upper (UED) and lower (LED) extremity venous duplex. The aim of this study is to characterize and compare those patients with and without an identifiable source of PE in terms of age, gender, malignancy, trauma, and critical illness.

Methods: We reviewed 2700 CT and identified patients with PE on CT performed from January, 2008 to September, 2010. We then reviewed their venous duplex studies, electronic discharge summaries and the cancer registry.

Results: We identified 152 women and 78 men (mean age 68) with PE. One-hundred thirty one patients had a documented source of PE (Group 1). Three patients had negative LED but did not have UED (Group 2). Thirty-one patients had neither LED nor UED (Group 3). Fifteen patients had no documented source of PE on UED and LED (Group 4). Ten patients in Group 4 had a documented malignancy listed as one of their diagnoses. In the other 3 groups, 84 out of 215 had cancer. There was no statistical significant difference in age,gender, critical illness, and trauma among the four groups. Group 4 had a statistically significant increased prevalence of active malignancy when compared to the rest of the patients, 47% vs 23% (p .= 043), as well as higher percentage of any history of cancer, 67% vs .39% (p .= 036).

Conclusions: While the pathophysiology of PE without DVT is to be determined, we can infer from our analysis that the presence of this disease entity can serve as a marker for malignancy and should prompt a diagnostic workup.

	Total patients	*Mean age*	*Any history of cancer*	*Cancer present at the time of PE*	*Prevalence of active cancer*
Group 1	151	18-96, mean 71.2	52	32	24%
Group 2	53	23-95, mean 67.7	20	9	17%
Group 3	31	50-91, mean 65.7	12	9	29%
Group 4	15	41-92, mean 68	10	7	47%

Author Disclosures: A. Hingorani: Nothing to disclose; **T. Schwartz**: Nothing to disclose.

PS156.

Carotid Artery Intima-Medial Thickness in Relation to Macrovascular Disease in Newly Detected Type-2 Diabetes

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Objectives: The intima-medial thickness (IMT) of extracranial carotid arteries is regarded as a marker of atherosclerosis. The objective of present study was to examine the relationship between carotid IMT and the presence of macrovascular disease in patients with type 2 diabetes.

Methods: The prospective study was carried out on 85 newly detected type-2 diabetic patients and 45 controlled subjects. The distal common carotid artery and carotid bifurcation IMT were measured bilaterally with high-resolution ultrasonography. Univariate linear regression analysis was done using IMT as dependent variable and age, body-mass index (BMI), waist-hip (W-H) ratio, blood pressure, plasma glucose, serum lipids and HbA1c as independent variables. Multivariate linear regression analysis was carried out using the variables which proved to have a significant association with IMT in the univariate analysis.

Results: The present study indicated that patients with increasing age, male sex, hypertension and diabetic dyslipidemia had significantly greater IMT than those without these factors. Multivariate linear regression analysis with IMT as dependent variable revealed statistically significant association with BMI ($p<0.05$); systolic blood pressure ($p<0.005$); diastolic blood pressure ($p<0.001$); fasting blood sugar ($p<0.001$); post-

prandial sugar ($p<0.001$); serum cholestrol ($p<0.001$) and HbA1c ($p<0.005$).

Conclusions: The clustering of risk factors called metabolic syndrome (or probably better dysmetabolic syndrome) confers an increased risk for accelerated atherosclerosis in diabetic individuals predisposing them to macrovascular disease and hence considerably contributing to both morbidity and mortality associated with it. Increase carotid IMT can be a useful predictor of macrovascular disease in newly detected type-2 diabetes.

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PS158.

Use of Ultrasound for Percutaneous Endovascular Aortic Aneurysm Repair (PEVAR) Reduces Rate of Conversion to Femoral Cutdown

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Objectives: This study was conducted to determine the effect of ultrasound-guided percutaneous access for endovascular aortic aneurysm repair (PEVAR) on conversion to open repair by femoral cutdown. We also analyzed other possible risk factors for unsuccessful PEVAR as well as our center's PEVAR outcomes.

Methods: This is a single-center, retrospective review of 101 patients who underwent PEVAR between January 1st, 2005 and July 31st, 2009 (56 months). Risk factors that were evaluated for unsuccessful PEVAR included gender, age (< 65 and ≥ 66), ultrasound guidance percutaneous access, mechanical failure, AAA size, and the following comorbidities: diabetes, hypertension, vessel calcification and obesity (BMI ≥ 30). The outcome parameters that we measured were length of stay in the hospital, endoleak rate, intraoperative transfusion rate, wound infections, and bowel ischemia.

Results: There were 10 (9.9%) conversions from percutaneous to femoral cut down yielding a success rate of 90.1% for a total percutaneous approach. Each converted patient had one groin converted, resulting in a cutdown rate per groin of 10/202 (5%). There were no 30-day mortalities. Univariate analysis showed that hypertension ($p=0.261$), age ≥ 66 ($p=0.741$), current smoking history ($p=0.649$), past smoking history ($p=0.093$), diabetes ($p=0.908$), vessel calcification ($p=0.8281$) and BMI ≥ 30 ($p=0.052$) did not significantly predict conversion to EVAR. Mechanical failure significantly predicted conversion to cut down EVAR ($p = 0.0002$) while ultrasound-guided percutaneous access influenced successful PEVAR ($p = 0.030$). Multivariate analysis showed that mechanical failure significantly predicted conversion to cut down EVAR ($p = 0.003$) and ultrasound-guided percutaneous access influenced successful PEVAR ($p = 0.040$) after adjusting for smoking history and obesity.

Conclusions: PEVAR is a viable option for aortic aneurysm repair that may be improved with ultrasound-guided percutaneous access by reducing the rate of femoral cutdowns.

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PS160.

Does the Modality of Surveillance Imaging Influence the Pick-up Rate of Asymptomatic Secondary Interventions following Endovascular Aortic Aneurysm Repair (EVAR)?

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Objectives: The literature reported that surveillance imaging initiated secondary interventions (SIR) in 1.4-9% of cases following Endovascular Aortic Aneurysm Repair (EVAR). This prospective study had the objective of evaluate if the modality of surveillance imaging influence the pick-up rate for asymptomatic SIR.

Methods: Two EVAR surveillance protocols were compared at the same vascular center. Protocol I was performed between 01/2003 and 12/2006 and consisted of a color Duplex ultrasound scan (CDU) plus CT angiography (CTA) 1 month after the procedure and every 6 months thereafter. Protocol II was performed between 01/2007 and 06/2010 and consisted of CDU plus CTA at the first month post-operative and a CDU plus 4-view plain abdominal films (RX) every 6 months thereafter. CTA was carried out only in definite conditions (increase of the aneurismatic sac >5 mm within 6 months, onset or persistence of any kind of endoleak, suspect of structural graft failures/migration). Asymptomatic SIR was considered when picked up by imaging alone on an elective basis before development of any symptom.

Results: 376 and 341 consecutive patients were enrolled in protocol I and II, respectively. The freedom from aneurysmatic rupture, the overall freedom from